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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/069,429 | 06/10/2002 | Toshiaki Minami | KOD74B.001APC | 3371 |

20995 7590 12/04/2003

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| EXAMINER |
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NAKARANI, DHIRAJLAL S

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| ART UNIT | PAPER NUMBER |
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1773

DATE MAILED: 12/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/069,429

Applicant(s)

MINAMI ET AL.

Examiner

D. S. Nakarani

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-- **Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 23-26 is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification as originally filed fail to provide support for the limitation "an inorganic surface preparation agent which is an alkaline dispersion liquid comprising silica sol or colloidal silica containing ultrafine particles having a particle size of less than 100 nm" in claim 1 lines 3-6. The specification as originally filed provides support for "colloidal silica or silica sol containing silicic anhydride by 30 to 40% and sodium below 1% and with pH value of 9.5 to 10.5 and with particle diameter of 4 to 100 nm (see paragraph 0029 of instant disclosure). The limitation "alkaline dispersion liquid" reads on pH value between more than 7 and less than 9.5 and also reads on pH value above 10.5. The specification as originally filed does not provide support for the pH value between more than 7 and less

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than 9.5 and also does not provide support for pH value greater than 10.5. Thus limitation "alkaline dispersion liquid" constitute new matter when dispersion liquid has pH value between 7 and less than 9.5 and also when dispersion has pH value of greater than 10.5. The limitation "ultrafine particles having a particle size of less than 100 nm" reads an ultrafine particles having a particles size of more than zero and less than 4 nm. The originally filed specification fail to provide support for the ultrafine particles having a particles size of more than zero and less than 4 nm. The specification, as originally filed, provides support for the diameter of 4 to 100 nm. Furthermore, the phrase "a particle size of less than 100nm" excludes ultrafine silica particles having a particle size of 100 nm. The exclusion of ultrafine silica particles having a particle size of 100 nm is a new matter since the originally filed specification does not provide support for exclusion of ultrafine silica particles having particle size of 100 nm.

4. Claim 20 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 20, line 2, the phrase "a inorganic acid" should read -- an inorganic acid -- and lines 2-3, the phrase "the inorganic salt" should read -- a sodium salt -- since reaction of sodium silicate with an inorganic acid produces sodium salt not any other salt.

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5. Claims 1-10 and 12-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Field et al (U.S. Patent 6,420,039 B1) for the reasons of record set forth in paragraph 7 of the Office Action mailed May 23, 2003 (Paper No. 7). Field et al's coating composition is not an alkaline dispersion rather it is an acidic dispersion. However in absence of providing criticality of claimed alkaline dispersion, the state of dispersion bears no patentable weight since the final coating dried. There is no indication that the dried coating of instant disclosure is also alkaline. Field et al's cationic silica is an aggregates of primary silica particles having mean diameter of less than about 100 nm, most preferably less than about 20 nm (col. 5 line 23 to col. 6 line 9).

6. Claims 23-26 are allowed.

7. Claims 11 and 20-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Claims 11 and 20-22 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

9. Applicant's arguments filed August 25, 2003 have been fully considered but they are not persuasive.

In reference to rejection of claims under 35 USC § 103(a) as being unpatentable over Field et al (US Patent 6,420,039 B1), applicants mainly argue that Field et al's coating is an aqueous dispersion of cationic silica wherein the mean diameter of silica particles is from about 100 nm to about 1 μ m and the pH of the dispersion is from about 2 to about 6. While amended claim 1, the inorganic surface preparation agent is an alkaline dispersion liquid comprising silica sol or colloidal silica containing ultra-fine silica particles having a particle size of less than 100 nm.

These arguments are unpersuasive because there is no criticality of alkaline dispersion liquid verses acidic dispersion liquid of surface preparation is established. There is no showing that Field et al's acidic dispersion of cationic silica results in different coated article compared to the article coated with alkaline dispersion of colloidal silica or silica sol and an inorganic pigment. The claimed invention requires presence of colloidal silica or silica sol containing ultra-fine silica particles having a particles size of less than 100 nm. Field et al's cationic silica is in form of aggregates having mean diameter of at least about 100 nm to about 1 μ m. However the silica aggregates is made of primary silica particles. The primary silica particles have mean diameter less than 100 nm most preferably less than about 20 nm (col. 5 line 23 to col. 6 line 9). The invention as claimed is open language and inclusive of silica particles higher than 100 nm as long as there is some (unspecified amount) silica particles with diameter less than 100 nm is there. Field et al's cationic silica dispersion deemed to have primary silica particles with claimed diameter. The claimed invention is not limited

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to the surface preparation agent having colloidal silica or silica sol consist of silica particles having particle diameter from 4 nm to 100 nm.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. S Nakarani whose telephone number is 703-308-2413. The examiner can normally be reached on Tuesday-Friday from 7:00 am to 5:30 pm.

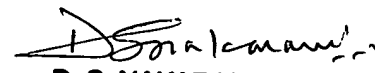
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Paul J. Thibodeau, can be reached on (703) 308-2367. The fax phone

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number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

D. S. Nakarani/mn
November 18, 2003


D. S. NAKARANI
PRIMARY EXAMINER